ROBERT GILL

CALIFORNIA BIRDS

Vol. 1, No. 4, 1970

CALIFORNIA BIRDS

Journal of California Field Ornithologists

Editors: Alan Baldridge, Virginia P. Coughran, Alan M. Craig, Jean T. Craig, Pierre Devillers, Joseph Greenberg, Clifford R. Lyons, Guy McCaskie, Thomas L. Rodgers

Volume 1, Number 4, 1970

The Occurrence of Four Species of Pelecaniformes in the Southwestern United States *Guy McCaskie* 117

Bird Listing and the Field Observer *Lester L. Short, Jr.* 143

NOTES

A Red-faced Warbler Reaches California *Guy McCaskie* 145

Chimney Swifts in Coastal Southern California *Pierre Devillers* 147

Sharp-tailed Sandpiper in Santa Barbara *Jon L. Atwood* 153

REVIEW 155

ACKNOWLEDGEMENTS 156

Membership dues and changes of address should be sent to Clifford R. Lyons, Treasurer, Post Office Box 369, Del Mar, California 92014. Classes of membership (all include subscription to California Birds): Patron, $1000; Life, $150; Supporting, $20 annually; Contributing, $10 annually, Regular, $5 annually. Make checks payable to California Birds.

Manuscripts should be sent to Guy McCaskie, San Diego Natural History Museum, Box 1390, San Diego, California 92112. Use of the Style Manual for Biological Journals is suggested as a guide in preparing manuscripts.

Rare bird reports should be sent to Jon Winter, Secretary, Rare Bird Committee, Point Reyes Bird Observatory, Mesa Rd., Bolinas, California 94924.

Cover design by Virginia P. Coughran

CALIFORNIA BIRDS

Volume 1, Number 4, 1970

THE OCCURRENCES OF FOUR SPECIES OF PELECANIFORMES IN THE SOUTHWESTERN UNITED STATES

Guy McCaskie

INTRODUCTION

The Brown Pelican *Pelecanus occidentalis,* Blue-footed Booby *Sula nebouxii,* Brown Booby *Sula leucogaster,* and Magnificent Frigatebird *Fregata magnificens* have all occurred in the interior portions of the southwestern United States. The frequency of occurrences, and the times of the year these birds appear is far from clear in the current literature. Also, the status of the Magnificent Frigatebird along the Pacific coast is somewhat confused; we learn from one source that it regularly ranges along the entire California coast, and from another that it is only an occasional wanderer to southern California. In the hopes of gaining a clearer understanding of the status of these birds in the Southwest, all the records of each species have been gathered together. The localities at which most appear, the times of the year most occur, and the age groups involved, become very clear from the accumulated records, and it is easier to speculate on the true status of each species.

BROWN PELICAN

The Brown Pelican occurs along both coasts of North and Central America. *Carolinensis* is the race occurring along the Atlantic seaboard and in the Gulf of Mexico, and *californicus* is the race occurring along

the Pacific coast of California and Mexico. Palmer (1962) indicates breeding colonies of *californicus* north to the head of the Gulf of California in Mexico, and to Monterey County in California. Schreiber and DeLong (1969) review the history of all the colonies from the Los Coronados Islands northward, and indicate a drastic decline in breeding success. The northernmost colony at Point Lobos was first used in 1927 and has never been very large. Willett (1933) indicates the breeding sites on the Channel Islands were always used irregularly, although that on Anacapa was in use during most years, and the colony on the Los Coronados Islands appears to be the northernmost receiving annual use. After breeding, adults and young disperse from the colonies, with many pushing far northward along the coast. It occurs annually to Oregon; Jewett et al. (1953) indicate it is an irregular late summer to early winter visitor to the coast of Washington, and Godfrey (1966) cites seven records, all in the late summer to early winter period, for coastal British Columbia.

Palmer (1962) indicates only four interior records for the Southwest; however, there are many more (fig. 1). It is now of annual occurrence at the Salton Sea; it is somewhat regular along the Colorado River Valley; there are a scattering of records throughout much of Arizona, and one from Lake Elsinore in Riverside County, California. Woodbury (1937) reports he saw one along the southeast shore of Great Salt Lake, Utah, on 28 April 1934; however, the accompanying description could well

Figure 1. Distribution of Brown Pelican records in the interior of the Western United States. Solid dots indicate late summer and fall reports. Open circles indicate spring records, all of which are somewhat questionable.

apply to a soiled White Pelican *Pelecanus erythrorhynchos*. Linsdale (1936) reports he saw one near Stillwater, Nevada, on 20 May 1934, but there are only skimpy details accompanying the record. Monson (1963b) refers to a total of nine individuals reported from three localities in New Mexico during April 1963; no details accompany the report other than the statement that one was definitely recognizable as a soiled White Pelican when seen at close range in good light, and this naturally casts suspicion on the identity of the others. Mailliard (1913) saw three together at Rancho Dos Rios, Stanislaus County, in the central valley of California on 19 September 1913, and was well aware of the significance of the record.

Brown Pelicans have been found on the Salton Sea during each of the past eight years; however, coverage was poor prior to this time, and there are only two additional records (1951 and 1952). Along the Colorado River Valley it has twice wandered north to Lake Mead in Nevada (2 September 1946, and 10 June 1959); farther south it has occurred at least five times on Havasu Lake, twice around Parker, five times in the vicinity of Imperial and Laguna Dams, and once near Yuma. There are no records from along the Colorado River prior to 1935, and most were recorded in the 1950's when coverage was at its best.

Vorhies and Phillips (1937) cite six occurrences in Arizona away from the Colorado River Valley (2 around Flagstaff in Coconino County, 1 in Pinal County, 2 in Pima County, and 1 in Cochise County). Phillips et al. (1964) cite two more records for the Flagstaff area (Flagstaff and Tolani Lake); Monson (1953) gives a record for the Phoenix area, and Snider (1967a and 1967b) cites two additional records for the same area.

Virtually all the birds recorded in the interior are immatures. Phillips et al. (1964) state "there is no record of an adult in Arizona". Of the nearly 100 individuals seen on the Salton Sea only three have been adults (1 on 18 November 1966, and 2 on 11 October 1969), and no other adults have been reported elsewhere from the interior of California.

Most of the birds occur during the late summer and early fall, with the peak in August and September (fig. 2). Three on Mormon Lake Arizona, on 7 June 1936, and a single bird at the Salton Sea on 7 June 1969 are the earliest arrivals. A lone bird at the Salton Sea in "mid November 1953", and seven there in early November 1966 with two still present on the 24th, are the latest these birds have lingered. All but one of the October records are from the Salton Sea, and all probably pertain to birds staying from September or earlier. Aside from the reports from Utah, New Mexico, and central Nevada, there appear to be only two other occurrences in the interior that do not fall in the June-November period.

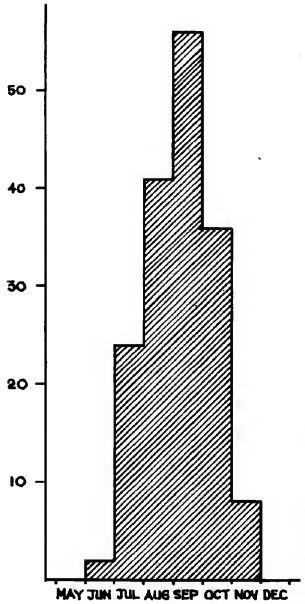


FIGURE 2. The seasonal occurrence of Brown Pelicans in the interior of the Southwestern United States. The number of individuals present each month is indicated (the dubious records were not included). Unpublished data of the author and others were included in computing the numbers present at the Salton Sea each month. An influx of birds into the area is responsible for the steady climb from June to September, but the continued occurrence is merely the result of individuals remaining in the area for extended periods of time. A flock of 23 birds at the Salton Sea in October 1969 is responsible for the large number present in that month.

Vorhies and Phillips (1937) refer to a flock of nine seen circling over the Baboquivari Mountains of Arizona on 23 March 1925, and Monson (1944) refers to a mounted specimen of one found dead in Somerton, Yuma County, Arizona, in the "spring of 1941". The flock could possibly have been White Pelicans, and the date on the Somerton bird is far from clear ("spring" could possibly mean as late as June).

BLUE-FOOTED BOOBY

The Blue-footed Booby occurs in the warm waters along the west coast of the Americas from northern Mexico south to northern Peru, with a distinct population, *S. n. excisa,* around the Galapagos Islands. It is considered non-migratory; however, there is dispersal from the breeding colonies after nesting, and non-breeding birds may wander considerable distances. The A.O.U. (1957) and Palmer (1962) indicate Consag Rock

and George Island, near the head of the Gulf of California, are the northernmost breeding colonies. It is common throughout the Gulf of California, but a specimen reported by Gifford (1913) from San Benito Island (15 July 1905) appears to be the only record for the west coast of Baja California away from the immediate vicinity of Cabo San Lucas.

In the United States the Blue-footed Booby is a rare to casual wanderer, with the majority occurring in southeastern California and western Arizona. The single record from the coast of California (Point Loma, San Diego County, 3 September 1969) more likely pertains to a bird wandering northwestward from the Gulf of California than to one flying northward up the Pacific coast of Baja California. Jewett et al. (1953) reports one collected in the Puget Sound near Everett, Washington, on 23 September 1935; this is far to the north of any other record, and assisted passage on a boat should be considered; however, it appeared at the same time of the year others wander northward.

In southern California and western Arizona a total of 61 Blue-footed Boobies have been recorded in twelve different years, but 32 of these occurred in 1969. Most of the records come from the Salton Sea (42) and the Colorado River Valley (6). There are eight records (10 individuals) from the area to the northwest of the Salton Sea including the Cochella Valley (Thousand Palms and Whitewater), lakes and reservoirs in the San Bernardino area (Big Bear Lake, Puddingstone Reservoir and Lake Mathews), and the northeastern portion of Los Angeles (Sierra Madre and Pasadena). Elsewhere, one was found as far east as Phoenix, Arizona, and three have been recorded to the west of the Salton Sea (Ocotillo, Escondido and Point Loma). The result is a peppering of records north and westward from the head of the Gulf of California (fig. 3).

These birds are arriving in the late summer, and their arrival is apparently the result of post breeding dispersal from nesting colonies in the Gulf of California. The earliest arrival date is 24 July 1965 (north end of the Salton Sea), and most appear during August and early September (fig. 4). This species is able to survive for long periods of time when it arrives in areas where food is available. One was at Havasu Lake on the Colorado River from at least "late November 1958" to 11 April 1959 (4½ months), and two were at Puddingstone Reservoir, Los Angeles County, between at least "early October 1964" and "late May 1965" (7½ months). The individual seen on Lake Mathews, Riverside County, on 22 May and 19 July 1965 was clearly able to feed (known to be present for 2 months), and had most likely arrived on the lake the previous

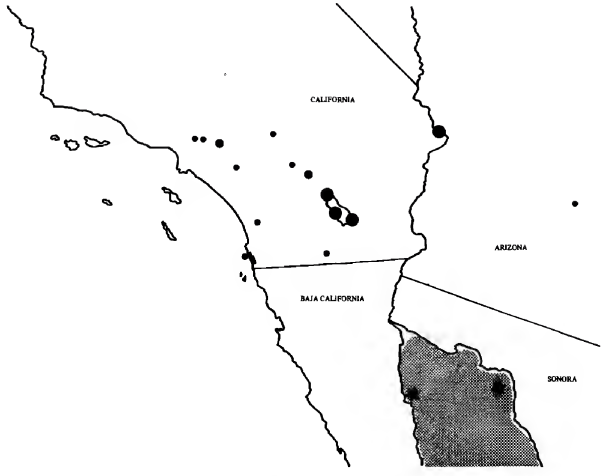


Figure 3. Solid dots indicate localities from which Blue-footed boobies have been recorded. The size of the dots suggest the number of individuals involved, but it is not possible to show the true situation for the Salton Sea in this manner. The two breeding colonies at the head of the Gulf of California are indicated with a star, and the area of normal occurrence is shaded.

fall, a fall which produced records of two other individuals in the same general area. Birds first noted in October and November have all been in areas where food was available, and it is possible all had been present locally since August or September. Edge (1934) states the one on Big Bear Lake had been present for several days prior to 1 November 1933, when it was shot.

There are seven records (8 individuals) of birds found away from water, and all fall between 29 July and 20 September, which is probably the period of normal occurrence in the Southwest. Five of these birds were picked up dead or dying on highways (Pasadena, Sierra Madre, Escondido, Ocotillo and Phoenix); two were seen flying north along Interstate Highway 10 near Thousand Palms on 3 September 1965, and another was seen flying north along the same highway near Whitewater on

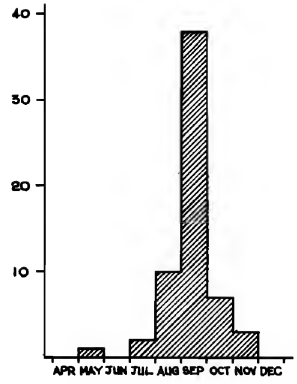


FIGURE 4. The seasonal occurrence of Blue-footed Boobies in the Southwestern United States. The month in which each individual was first reported is indicated, to show the time of the year these birds are appearing. Birds first noted after September could all have been present, and unreported, for at least a month. The bird found in May is likely to have been present since the previous fall. The sharp peak in September represents the arrival of 32 individuals in 1969.

20 September 1965. These records may indicate highway pavements are mistaken for water by these birds.

There appears to be much variation in the plumage characters of the Blue-footed Boobies occurring on the Salton Sea; some are heavily washed with brown about the head and neck, have pinkish-gray feet and legs, and are clearly immatures; others are much whiter about the head and neck, have bright blue feet and legs, and are assumed to be adults. Birds in intermediate plumages are probably sub-adults, and it is assumed the species takes more than two years to acquire full adult plumage. It is apparent that immatures are much more frequent than adults, but adults do occur, and one (#37266, San Diego Natural History Museum) found at the north end of the Salton Sea on 14 September 1969 is an adult female.

BROWN BOOBY

The Brown Booby is the commonest and most widespread member of the *Sulidae*. It occurs throughout most of the tropical and subtropical waters of the Pacific, Atlantic, and Indian Oceans. It is normally considered non-migratory, but non-breeding birds wander far from the nesting colonies. The two races occurring in North America are the nominate race along the Atlantic coast, and *brewsteri* along the Pacific

coast. The A.O.U. (1957) and Palmer (1962) indicate *brewsteri* breeds on islands throughout the Gulf of California southward to Nayarit, Mexico. On the Pacific coast of Baja California there are but three records away from the immediate vicinity of Cabo San Lucas. Huey (1924) reported one collected near East San Benito Island on 7 August 1923, Van Rossem (1945) saw an immature at 31°31' N. 117° 0' W. (about 50 miles W.S.W. of Ensenada) on 3 July 1925, and an immature female (#17091, S.D.N.H.M.) was taken 12 miles south of the Los Coronados Islands on 12 August 1935.

The Brown Booby is a casual wanderer to the southwestern United States, with most appearing along the Colorado River Valley and at the Salton Sea (fig. 5). A single adult, most likely the same individual returning year after year, was on Prince Islet at the northeast end of San Miguel Island during the summers of 1961, 1965, and 1968, and represents the only acceptable record from the coastal region.

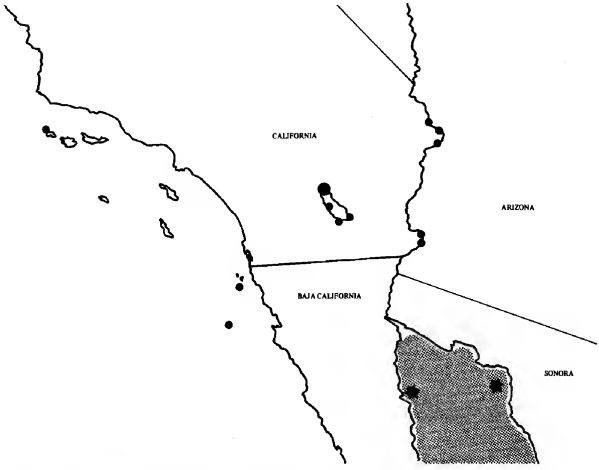


Figure 5. Solid dots indicate localities from which Brown Boobies have been recorded. The size of the dots suggest the number of individuals involved. The two breeding colonies at the head of the Gulf of California are indicated with a star, and the area of normal occurrence is shaded.

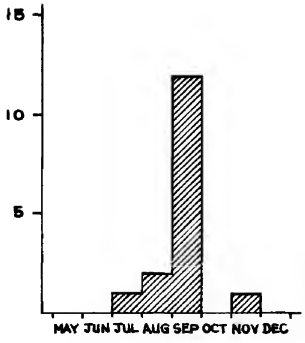


FIGURE 6. The seasonal occurrence of Brown Boobies in the Southwestern United States. The month in which each individual was first reported is indicated, to show the time of the year these birds arrive. Birds first noted in November are likely to have been present for some weeks. The peak in September is due to the appearance of eight individuals in 1969.

At least 16 individuals have been recorded at the Salton Sea and along the Colorado River Valley since 1943, but half of these occurred in 1969. Most of the birds are young of the year; however, among the eight at the Salton Sea in 1969 there was one sub-adult and three adult plumaged individuals. It is apparent these birds are arriving in the late summer, and their occurrence is the result of post-breeding dispersal from nesting colonies in the Gulf of California. An immature at the north end of the Salton Sea on 28 July 1966 is the earliest arrival date on record, and most have appeared in September (fig. 6). Phillips et al. (1964) report one continuously present for 25 months (5 September 1958 to 7 October 1960) at Martinez Lake on the Colorado River. Such records illustrate how long individuals can survive away from their normal habitat, and also serve to point out *arrival dates* are sometimes difficult to determine and are not necessarily anywhere close to the dates on which birds are found. The adult seen at the north end of the Salton Sea on 25 April 1970 had most likely been present on the sea from the previous fall; however, no adults had been reported from there since 11 October 1969.

MAGNIFICENT FRIGATEBIRD

The Magnificent Frigatebird occurs in the tropical and sub-tropical waters along both coasts of the Americas, and also in a limited area along the west coast of Africa. It is considered a permanent resident within its breeding range, but non-breeding individuals wander considerable dis-

tances from the nesting colonies. In the Pacific, Grinnell (1928) indicates it occurs regularly north to latitude 26° on the west coast of Baja California, and throughout all but the extreme northern portion of the Gulf of California. Palmer (1962) indicates it regularly ranges north to the Oregon border, but he cites no records to substantiate this; he also indicates no interior occurrences for the Southwest.

Along the Pacific coast of the United States the Magnificent Frigatebird is a very rare late summer straggler to extreme southern California, occurring casually north to Santa Barbara County, and accidentally north of there. It has also occurred casually around the Salton Sea and along the Lower Colorado River Valley, and accidentally elsewhere in the Southwest (fig. 7).

By the end of 1970 there were at least 30 records (six records lacking complete data are excluded) from the coast of southern California (13 in San Deigo, 2 in Orange, 6 in Los Angeles, 1 in Ventura, and 7 in Santa Barbara Counties, and 1 on Catalina Island). Most of these records pertain to single individuals, but there are six instances of two being seen together (Santa Barbara, 16 August 1969; Carpinteria, 12 August 1912; Long Beach, 13 June 1911; La Jolla, 29 August 1935, 26 July 1940, and 16 July 1966). It has been recorded annually since 1964, occurring north to Santa Barbara County in four of these years. With more observers afield, and an increase in communications with fisher-

Figure 7. Solid dots indicate localities from which Magnificent Frigatebirds have been recorded. It is evident the species is rare in southern California, and does not normally wander north of Santa Barbara county.

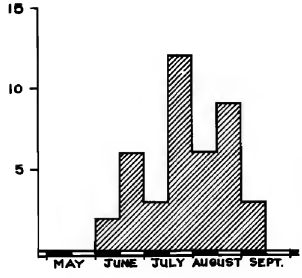


FIGURE 8. The seasonal occurrence of Magnificent Frigatebirds along the southern California coast. Each sighting of every individual is indicated according to the half-month in which it occurred. Records north of Santa Barbara County are considered accidental, and are not included.

men, we can expect an increase in records; however, this species is large and conspicuous and remains along the coastline, so very few can pass unnoticed.

Magnificent Frigatebirds appear in southern California in the late summer, with most occurring in July and August (fig. 8). The earliest arrival date is 13 June, and one near Oceanside on 9 September 1940 is the latest. Most of the birds of known age have been white headed immatures. Two exceptions are an adult female seen at Seal Beach, Orange County, on 27 June 1956, and an adult female seen at La Jolla, San Diego County, on 10 August 1968.

In northern California there is one record for Monterey County (12 January 1953), two for Marin County (20 June 1905 and 13 August 1968), and one for Humboldt County (5 October 1888). All were immatures except for the 13 August bird which was reported as an "adult (sex?)". Jewett (1935) reported an immature collected at Tillamook Rock, Clatsop County, Oregon, on 18 February 1935, which constitutes the northernmost occurrence on the west coast. It is interesting to note that three of these records are for dates much later than any for southern California.

There are seven records from the area of the Salton Sea and the lower Colorado River Valley. All but two of the records are of single individuals seen on one day only. Three immatures were seen flying north along the Colorado River between Laguna Dam and Imperial Dam on 20 July 1968. Single immatures were seen at various points on the Salton Sea on four dates in the late summer of 1968 (20 and 29 July, 3 August, and 1 September), and two were seen together there on 10 August of the same year. Two birds remaining around the Salton Sea for six weeks could account for the sightings, but the 10 August birds were watched

as they circled to a great height above the southeast corner of the sea, then flew in a straight line towards the Gulf of California, and appeared to be departing from the area.

As is the case along the coast, this species is most frequently noted in July and August (fig. 9). One near Palm Springs on 24 June 1961 represents the earliest arrival date, and an invididual over Havasu Lake on the Colorado River on 8 September 1955 is the latest.

In southeastern Arizona, Phillips et al. (1964) report one seen at Tamacacori National Monument on 18 June 1953, and another seen at Picacho Reservoir on 29 August 1962. In New Mexico, Zimmermann (1968) reports an adult female recently dead near Silver City on 1 October 1967; Hubbard (1970) reports photographs are on file of an adult female at Bitter Lake National Wildlife Refuge on 4 – 6 October 1955 (photo checked by author), and he reports an immature was seen at Las Cruces on 1 February 1969. Zimmermann (1968) felt the 1967 bird had come from the Gulf Coast of Texas, and it is possible the other two New Mexican birds also came from the east; however, a west coast origin is just as likely, and there will be no way of knowing from which coast these birds wandered.

Oberholser (1917) stated the Greater Frigatebird *Fregata minor* occurred on both coasts of California and Lower California, and Swarth (1933) believed *Fregata minor* occurred on the Lower California coast. Neither backed up their statements by specimens, and it appears there was much confusion about the identity and distribution of *magnificens* and *minor* in those early years. Eisenmann (1955) and others do much

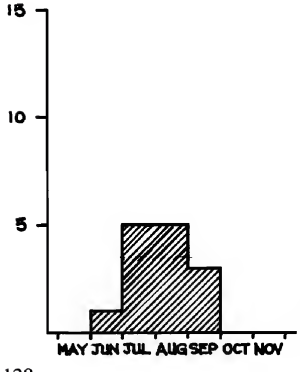


FIGURE 9. The seasonal occurrence of Magnificent Frigatebirds around the Salton Sea and along the Colorado River Valley. Each sighting of every individual is indicated according to the month in which it occurred.

to perpetuate the rumored occurrences along the west coast. Friedmann et al. (1950) indicate no records for the west coast of Mexico, Land (1970) cites none for Guatemala, and Monroe (1968) knew of none for Honduras. A breeding population on the Revilla Gigedo Islands, far off the coast of Mexico, appears to be the closest point of occurrence to California. Zimmermann (1968) cast doubt on the identity of the two frigatebirds reported by Phillips et al. (1964) as being possibly *minor*. While on the subject of these two sightings it is interesting to note that Monson (1953) reported the individual seen at Tumacacori National Monument was either "a female or immature", indicating the subtle differences between *magnificens* and *minor* were probably not noted, and Monson (1963a) reported the immature seen at Picacho Reservoir was believed "very likely *F. magnificens* by the observer".

DISCUSSION

Figure 10 summarizes the number of individuals of each species occurring inland in the Southwest in recent years. It is evident numbers vary from year to year. Brown Pelicans are the most numerous, and are now occurring every year; however, numbers are greatest in years when boobies are also present. Blue-footed Boobies are more numerous than Brown Boobies, and there are definite flight years for these birds (1953, 1966, and 1969 being the most obvious). It appears to be rare for Brown Boobies to occur without Blue-footed Boobies also occurring. Early September 1969 saw the greatest influx of boobies and Brown Pelicans on record, with numbers of boobies equaling all those previously recorded in the area. Magnificent Frigatebirds are rarest, and their occurrences are not correlated with flight years for boobies as evidenced by the fact they occurred in four years when no boobies were reported, and when numbers of Brown Pelicans were small or nonexistent. 1968 was the only year numbers of these birds appeared in the Southwest; this was a poor year for Brown Pelicans and only two Blue-footed Boobies were found.

The post breeding dispersal of Brown Pelicans is well known to anyone who spends much time on the coast. During the nesting season (March to May) the Brown Pelican is relatively scarce away from the vicinity of the colonies, but in late summer becomes relatively common along the entire coast with some pushing far to the north. It would not be surprising to learn that boobies also have a strong urge to push north after the nesting season. Such an urge could well push some individuals northward from the head of the Gulf of California, and consequently

Year	Blue-ftd. Booby	Brown Booby	Magnificent Frigatebird	Brown Pelican
1950				1
1951				1
1952				1
1953	7	1	1	3
1954	3		1	3
1955			2	2
1956				
1957		1		
1958	1	2		
1959				2
1960				
1961			1	
1962			1	
1963				7
1964	3			12
1965	4			16
1966	5	1	1	19
1967			1	3
1968	2		8	10
1969	32	8		25
1970	1	1		4

Figure 10. A chart showing the number of each of the four species discussed occurring in the interior Southwest each year since 1950. This indicates boobies occur in years when Brown Pelicans are most numerous, and frigatebirds frequently occur when Brown Pelicans are scarce.

bring Brown Pelicans and the two species of boobies to southeastern California and western Arizona. It is reasonable to assume that the post breeding dispersal of Brown Pelicans is responsible in part for the appearance of this species in the interior portions of the Southwest, and it is also likely this factor is responsible for the appearance of boobies in the same area.

Brown Pelicans and boobies feed in similar fashion, diving into the water after living prey. Frigatebirds steal food from other birds, pick up fish from the water surface, and eat carrion. A shortage of food for boobies and pelicans would not necessarily mean a shortage of food for frigatebirds, for the differences in feeding behavior between the two are such that the one might prosper while the other is starving (a heavy die-off of fish would help frigatebirds but would make life difficult for pelicans and boobies). It is very likely the availability of food in the Gulf

of California is a factor influencing the numbers of these birds occurring in the Southwest each year, but nothing appears to be written on the subject. An increase in the number of birds competing for food as the summer progresses, due to the addition of young to the population, may be such that some individuals are pressured into moving northward in search of new feeding areas. Undoubtedly there are factors affecting fluctuations in the fish population numbers in the Gulf of California, and there are indications that there might be a die-off of marine life there following spells of hot weather. This is being investigated. A lack of live fish would certainly drive pelicans and boobies elsewhere in search of food.

SUMMARY

The occurrence of the Brown Pelican, Blue-footed Booby, Brown Booby, and Magnificent Frigatebird in the interior portions of the southwestern United States is discussed. It is evident the former is of regular occurrence at the Salton Sea, and all are of casual to accidental occurrence throughout a large area of the Southwest. Most occur at the Salton Sea and along the lower Colorado River Valley. Most are immatures, and virtually all occur in the late summer and early fall. These birds evidently come from the Gulf of California, and it is suggested a combination of post-breeding dispersal and temporary lack of food in the Gulf are the factors driving these birds northward. There are obviously flight years when numbers of these birds appear in the Southwest. Boobies and pelicans appear together in certain years, but frigatebirds tend to occur in years when few if any of the former species are present.

In addition, the status of Magnificent Frigatebird on the Pacific Coast is discussed; it is a very rare late summer straggler to extreme southern California, occurring casually north to Santa Barbara, and accidentally north of there. Also, the rumored occurrence of *minor* is mentioned and dismissed.

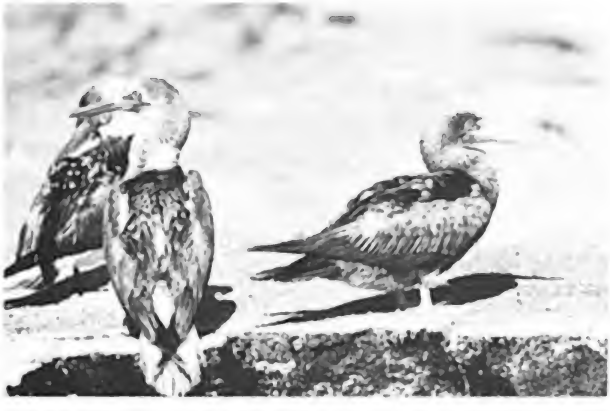
ACKNOWLEDGEMENTS

The New Mexico Ornithological Society supplied me with information on Magnificent Frigatebirds in New Mexico. Pierre Devillers read an early version of this paper, and gave many useful suggestions.

An adult plumaged Blue-footed Booby *Sula nebouxii* at Salton City on the Salton Sea, November 1969. *Photo by Herbert Clarke.*

Two Blue-footed Boobies *Sula nebouxii* at Salton City on the Salton Sea, November 1969. The light headed bird is judged to be an adult, but the dark headed bird has not yet acquired full adult plumage. *Photo by Herbert Clarke.*

An adult female Magnificent Frigatebird *Fregata magnificens* flying overhead at Mazatlan, Mexico, December 1964. The immature has an entirely white head as well as the white breast. *Photo by Herbert Clarke.*



Two Blue-footed Boobies *Sula nebouxii* and an immature Brown Booby *Sula leucogaster* at Salton City on the Salton Sea, November 1969. The immature Brown Booby has pale yellow legs and feet. *Photo by Herbert Clarke.*

An adult Brown Booby *Sula leucogaster* at Prince Islet, off San Miguel Island, California, 3-5 July 1965. The pale coloration about the head is characteristic of *brewsteri*. *Photo by Herbert Clarke.*

A young Brown Pelican *Pelecanus occidentalis*, Marina del Rey, September 1968. First year birds have the head and neck a much darker brown than on this individual. *Photo by Herbert Clarke.*

Two Blue-footed Boobies on the mudflats at the north end of the Salton Sea, 6 August 1966. The erect bird has bright blue legs and feet, and is judged to be an adult. The bird preening has pinkish legs and feet, and is judged to be an immature. *Photo by Guy McCaskie.*

A flock of boobies at Salton City on the Salton Sea, 28 September 1969. There are five Blue-footed Boobies *Sula nebouxii* and an immature Brown Booby *Sula leucogaster* present. *Photo by Ron LeValley.* *from Audubon Field Notes*

APPENDIX

The specific records used in the analysis of the four species in the Southwest are listed. All the records are from California unless otherwise indicated. The records are listed in chronological order by species, and the coastal records are held separate from the interior ones. In those cases where the record is documented by a specimen, and the record is either unpublished or is mentioned only in Audubon Field Notes, the catalogue number and deposition of the specimen is given. In addition, reports of questionable validity, and those accompanied by inadequate information as to date or locality, are mentioned.

BROWN PELICAN

1 nr. Laguna Dam, Arizona, 14 Aug. 1950 (Monson, 1950); 1 Salton Sea, Imperial Co. 27 Aug. 1951, and 10 Oct. 1952 (Small and Pyle, 1953); 1 Parker, Arizona, 1 Aug. 1953, and 1 Goodyear, Arizona, 2 Aug. 1953 (Monson, 1953); 1 Salton Sea, Imperial Co. mid-Nov. 1953 (Small, 1954); 1 Flagstaff, Arizona, 3 Aug. 1954 (Phillips et al. 1964); 1 Crossroads, San Bernardino Co. 13 Aug. 1954, and 1 Parker Dam, Arizona, 16 Aug. 1954 (Monson, 1954b); 1 nr. Imperial Dam, Arizona, 16 Aug. 1955, and 1 Laguna Dam, Imperial Co. 18-24 Aug. 1955 (Monson, 1956); 1 Boulder Beach, Nevada, 10 June 1959, and 1 Havasu Lake, Arizona, 28-31 July 1959 (Monson, 1959d); 2-7 Salton Sea, Riverside Co. 1-14 Sept. 1963 (McCaskie, pers. obs.); 3-10 Salton Sea, Riverside and Imperial Cos. 8 Aug. to 13 Sept. 1964 (McCaskie and Pugh, 1964b and 1965); 1-15 Salton Sea, Riverside and Imperial Cos. 10-24 July 1965 (Pugh, 1965); 1 Salton Sea, Riverside Co. 21 Aug. 1965 (McCaskie, 1966a); 3-10 Salton Sea, Riverside Co. 28 July to 18 Nov. 1966, and 1-7 Salton Sea, Imperial Co. 3 Sept. to 24 Nov. 1966 (McCaskie, 1966b and 1967a); 1 Phoenix, Arizona, 1-3 Sept. 1966, and 1 Havasu Lake, Arizona, 9 Oct. 1966 (Snider, 1967a); 1 Salton Sea, Riverside Co. 29 July to 4 Sept. 1967, and 1 Lake Elsinore, Riverside Co. 18 Sept. 1967 (McCaskie, 1967b and 1968a); 1 Phoenix, Arizona, 4 Aug. 1967 (Snider, 1967b); 3-10 Salton Sea, Riverside Co. 3 July to 8 Sept. 1968 (McCaskie, 1968b and 1969a); 1-23 Salton Sea, Riverside and Imperial Cos. 7 June to 11 Oct. 1969 (McCaskie, 1969b and 1970); 1 Ramer Lake, Imperial Co. 8-30 Aug. 1970, and 1-3 Salton Sea, Imperial Co. 30 Aug. to 26 Sept. 1970 (McCaskie, pers. obs.).

1 Los Banos, Merced Co. 30 Dec. 1968 (Audubon Field Notes 23:413, 1969) was seen briefly in poor light by observers who were not aware of the unusualness of the record.

BLUE-FOOTED BOOBY

1 Salton Sea, Riverside Co. 1-11 Nov. 1929 (Clary, 1930); 1 Big Bear Lake, San Bernardino Co. 1 Nov. 1933 (Edge, 1934); 1 Sierra Madre, Los Angeles Co. 18 Aug. 1947 (#20523, Los Angeles County Museum); 1 Phoenix, Arizona, 29

July 1953, and 1 Havasu Lake, Arizona 19 Sept. 1953 (Phillips et al. 1964) and 2 more there 5 Oct. 1953 (Monson, 1954a); 3 Salton Sea, Riverside Co. 18 Oct. 1953 with 1 still present 31 Oct. 1953 (Small, 1954, and Smart, pers. comm.); 1 Havasu Lake, Arizona, 13 Aug. 1954 (Monson, 1954b), and another there 4-10 Sept. 1954 (Monson, 1955); 1 Pasadena, Los Angeles Co. 17 Sept. 1954 (Stultz, 1955); 1 Havasu Lake, Arizona, late Nov. 1958 to 11 April 1959 (Monson, 1959b and 1959c); 2 Puddingstone Reservoir, Los Angeles Co. early Oct. 1964 to late May 1965 (McCaskie and Pugh, 1965 and McCaskie 1965); 1 Lake Mathews, Riverside Co. 22 May and 19 July 1965 (McCaskie, 1966a); 1 Salton Sea, Riverside Co. 24 July and 21 Aug. 1965 (Pugh, 1965 and McCaskie, 1966a); 2 Thousand Palms, Riverside Co. 3 Sept. 1965, and 1 nr. Whitewater, Riverside Co. 20 Sept. 1965 (McCaskie, 1966a); 2-5 (1 collected 13 Aug. 1966, #3844, San Bernardino County Museum) Salton Sea, Riverside Co. 4 Aug. to 16 Oct. 1966 (McCaskie, 1966b and 1967a); 1 Ocotillo Wells, Imperial Co. 4 Aug. 1968 (#36707, San Diego Natural History Museum); 1 Salton Sea, Riverside Co. 10 Aug. to 1 Sept. 1968 (McCaskie, 1968b and 1969a); 1-30 (1 collected 14 Sept. 1969, #37266, S.D.N.H.M. and 2 collected 28 Sept. 1969, #4642 and #4643, S.B.C.M.) Salton Sea, Riverside and Imperial Cos. 31 Aug. to 23 Nov. 1969; 1 Point Loma, San Diego Co. 3 Sept. 1969, and 1 (#37566, S.D.N.H.M.) nr. Escondido, San Diego Co. 8 Sept. 1969 (McCaskie, 1970); 1 Salton Sea, Riverside Co. 15 Aug. 1970 (Cardiff, pers. comm.).

An unidentified booby between Anaheim Landing and Sunset Beach, Orange Co. 25 Oct. 1921 (Van Rossem, 1922) has been treated under this species (Grinnell and Miller, 1944). 1 (#17171, S.D.N.H.M.) found on a street in San Diego, San Diego Co. 28 Jan. 1936 is soiled and worn, and is probably an escapee from the zoo.

BROWN BOOBY

1 Havasu Lake, Arizona, 13-14 Aug. 1943 (Monson, 1946); 1 Imperial Dam, Imperial Co. 20 Sept. 1946 (McMurry, 1948); 1 Havasu Lake, Arizona, 5 Sept. 1953 (Phillips et al., 1964); 1 Headgate Rock Dam, San Bernardino Co. 20 Nov. 1957 (Huey, 1959); 1 Martinez Lake, Arizona, 5 Sept. 1958 to 7 Oct. 1960 (Monson, 1959a and 1961); 1 Imperial Dam, Imperial Co. 20 Sept. 1958 (Monson, 1959a); 1 (#3845, S.B.C.M.) Salton Sea, Riverside Co. 28 July to 13 Aug. 1966 (McCaskie, 1966a); 1-8 Salton Sea, Riverside and Imperial Co. 6 Sept. to 26 Oct. 1969 (McCaskie, 1970), and what was probably one of these birds still there 25 April 1970 (Cardiff, pers. comm.); 1 Salton Sea, Imperial Co. 15-22 Aug. 1970 (Cardiff, pers. comm. and McCaskie, pers. obs.).

1 San Miguel Island, Santa Barbara Islands, 25-26 July 1961, 3-5 July 1965, and 5 June and 20 July 1968 (Small, 1961b, Pugh, 1965, and McCaskie, 1968). A record from Point Loma, San Diego Co. (Small, 1960) lacks sufficient details.

MAGNIFICENT FRIGATEBIRD

1 35 miles below Boulder Dam, Nevada, 2 Sept. 1946 (Baldwin, 1947); 1 Havasu Lake, Arizona, 13 Aug. 1954 (Monson, 1954b); 1 Havasu Lake, Arizona, 8 Sept. 1955 (Monson, 1956); 1 Palm Springs, Riverside Co. 24 June 1961 (Small, 1961a); 1 Salton Sea, Riverside Co. 13 Aug. 1966 (McCaskie, 1966b); 3 Imperial

Dam, Imperial Co. 20 July 1968 (Snider, 1968); 1-2 Salton Sea, Riverside and Imperial Cos. 20 July to 1 Sept. 1960 (McCaskie, 1968b and 1969a).

1 Humboldt Bay, Humboldt Co. 5 Oct. 1888 (Grinnell and Miller, 1944); 1 San Pablo Bay, Marin Co. 20 June 1905 (Gifford, 1905); 1 Alamitos Bay, Los Angeles Co. 17 June 1906 (Willett, 1912); 2 Carpinteria, Santa Barbara Co. 12 Aug. 1912, and 1 13 miles west of Santa Barbara, Santa Barbara Co. 27 Aug. 1912 (Dawson, 1912) – the same birds are referred to as seen on 12 and 24 Aug. 1912 (Dawson, 1923); 2 Long Beach, Los Angeles Co. 13 June 1911 (Linton, 1911); 1 Catalina Island, Channel Islands, 29 June 1913 (Howell, 1917); 1 nr. Hueneme, Ventura Co. 29 July 1925 (Hoffmann, 1926); 1 San Diego, San Diego Co. 27 June 1927 (Abbott, 1927); 1 Redondo Beach, Los Angeles Co. 30 July 1928 (Willett, 1933); 2 La Jolla, San Diego Co. 29 Aug. 1935 (Miller, 1936); 1 Carlsbad, San Diego Co. 9-13 July 1940, 2 La Jolla, San Diego Co. 26 July 1940, and 1 25 miles west of Oceanside, San Diego Co. 9 Sept. 1940 (Abbott, 1941); 1 nr. Gaviota, Santa Barbara Co. 11 July 1941 (Bond, 1941); 1 Newport, Orange Co. 12 July 1951 (Pyle, 1951); 1 Point Lobos, Monterey Co. 12 Jan. 1953 (Legg, 1954); 1 Seal Beach, Orange Co. 27 June 1956 (Small, 1956); 1 Zuma Beach, Los Angeles Co. 16 June 1958 (Small, 1958); 1 Point Loma, San Diego Co. 19 Aug. 1964 (McCaskie and Pugh, 1965); 1 San Pedro, Los Angeles Co. 26 Aug. 1965, and 1 La Jolla, San Diego Co. 6 Sept. 1965 (McCaskie, 1966a); 1-2 La Jolla, San Diego Co. 16-23 July 1966 (McCaskie, 1966b); 1 nr. Gaviota, Santa Barbara Co. 17 July 1966 (McCaskie, 1967a); 1 Santa Barbara, Santa Barbara Co. 5 Sept. 1967 (McCaskie, 1968a); 1 San Pedro, Los Angeles Co. 20 June 1968, 1 La Jolla, San Diego Co. 24 July 1968, and 1 nr. Carpinteria, Santa Barbara Co. 5 Aug. 1968 (McCaskie, 1968b); 1 La Jolla, San Diego Co. 10 Aug. 1968 (McCaskie, 1969a); 1 Rodeo Lagoon, Marin Co. 13 Aug. 1968 (Chandik and Baldridge, 1968); 1 San Diego, San Diego Co. 17-18 July 1969, and 1 Imperial Beach, San Diego Co. 29 July 1969 (McCaskie, 1969b); 1-2 nr. Santa Barbara, Santa Barbara Co. 16-23 Aug. 1969 (McCaskie, 1970); 1 San Diego area, San Diego Co. 30 July to 25 Aug. 1970 (Jehl, Devillers and Saddington, pers. comm.).

1 (skull found) Farallon Islands; 1 (collected) "Santa Clara-San Francisco" – no date; 1 (collected) North Pasadena, Los Angeles Co. "about August 1892"; 3 nr. Los Angeles, Los Angeles Co. "December 1897"; 1 (collected) Huntington Beach, Orange Co. "early September 1925" (Grinnell and Miller, 1944); 1 Manhatten Beach, Los Angeles Co. "July 1952" (Small and Pyle, 1952), and 1 Catalina Island "September 1963" (not November as printed) (McCaskie and Pugh, 1964a) – all vague records as far as specific localities or dates are concerned. 1 (collected) Hueneme, Ventura Co. "about 1895" (Willett, 1912) and "in 1915" (Hoffmann, 1926) are suspected to refer to the same individual.

LITERATURE CITED

Abbott, C. G. 1927. Another Man-o'-war-bird wanders into California waters. Condor 29:272.

Abbott, C. G. 1941. Notes from San Diego, California. Condor 43:77.

American Ornithologists' Union. 1957. Check-list of North American birds. Fifth ed. Amer. Ornithol. Union, Baltimore.

Baldwin, G. C. 1947. New records for the Boulder Dam area, Nevada. Condor 49:85.

Bond, R. M. 1941. Man-o'-war-bird in Santa Barbara County, California. Condor 43:249.

Chandik, T. and A. Baldridge. 1968. Nesting Season. Middle Pacific Coast region. Audubon Field Notes 22:643.

Clary, B. L. 1930. Blue-footed Booby on Salton Sea. Condor 32:160-161.

Dawson, W. L. 1912. Recent Santa Barbara records. Condor 14:223-224.

Dawson, W. L. 1923. The birds of California. Vol. IV. South Moulton Co., San Diego, Los Angeles, San Francisco.

Edge, E. R. 1934. Blue-footed Booby in San Bernardino County, California. Condor 36:88.

Eisenmann, E. 1955. The species of Middle American birds. Transactions of the Linnaean Society of New York 7:1-128.

Friedmann, H., L. Griscom and R. T. Moore. 1950. Distributional check-list of the birds of Mexico, part 1. Pacific Coast Avifauna no. 29.

Gifford, E. W. 1905. *Fregata aguila* at San Pablo Bay, California. Auk 22:408.

Gifford, E. W. 1913. Expedition of California Academy of Sciences to the Galapagos Islands. Proc. Calif. Acad. Sci. Ser. 4, 2:1-132.

Godfrey, W. E. 1966. The birds of Canada. Nat. Mus. of Canada Bull. 203. Biol. Series 73.

Grinnell, J. 1928. A distributional summation of the ornithology of Lower California. Univ. of Calif. Publ. in Zool. 32:1-300.

Grinnell, J. and A. H. Miller. 1944. The distribution of the birds of California. Pacific Coast Avifauna no. 27.

Hoffmann, R. 1926. Man-o'-war-bird in Ventura County, California. Condor 28:102.

Howell, A. B. 1917. Birds of the islands off the coast of southern California. Pacific Coast Avifauna no. 12.

Hubbard, J. P. 1970. Check-list of the birds of New Mexico. New Mexico Ornithological Society Publ. no. 3.

Huey, L. M. 1924. Notes from southern and Lower California. Condor 26:74-75.

Huey, L. M. 1959. The second occurrence of a Brown Booby near Parker Dam on the Colorado River. Condor 61:223-224.

Jewett, S. G. 1935. The Man-o'war-bird off the Oregon coast. Condor 37:212-213.

Land, H. C. 1970. Birds of Guatemala. Pan-American Section International Committee for Bird Preservation.

Lawrence, R. H. 1893. *Fregata aguila* in California. Auk 10:362.

Legg, K. 1954. Additions to the avifaunal records of Point Lobos, California. Condor 56:313-314.

Linsdale, J. M. 1936. The birds of Nevada. Pacific Coast Avifauna no. 23.
Linton, C. B. 1911. Man-o'-war Birds in southern California. Condor 13:168.
Mailliard, J. 1913. Dry season notes. Condor 15:228.
McCaskie, G. 1965. Spring Migration. Southern Pacific Coast region. Audubon Field Notes 19:511.
McCaskie, G. 1966a. Fall Migration. Southern Pacific Coast region. Audubon Field Notes 20:91.
McCaskie, G. 1966b. Nesting Season. Southern Pacific Coast region. Audubon Field Notes 20:599.
McCaskie, G. 1967a. Fall Migration. Southern Pacific Coast region. Audubon Field Notes 21:76.
McCaskie, G. 1967b. Nesting Season. Southern Pacific Coast region. Audubon Field Notes 21:604.
McCaskie, G. 1968a. Fall Migration. Southern Pacific Coast region. Audubon Field Notes 22:89.
McCaskie, G. 1968b. Nesting Season. Southern Pacific Coast region. Audubon Field Notes 22:647.
McCaskie, G. 1969a. Fall Migration. Southern Pacific Coast region. Audubon Field Notes 23:107.
McCaskie, G. 1969b. Nesting Season. Southern Pacific Coast region. Audubon Field Notes 23:694.
McCaskie, G. 1970. Fall Migration. Southern Pacific Coast region. Audubon Field Notes 24:97.
McCaskie, G. and E. A. Pugh. 1964a. Fall Migration. Southern Pacific Coast region. Audubon Field Notes 18:73.
McCaskie, G. and E. A. Pugh. 1964b. Nesting Season. Southern Pacific Coast region. Audubon Field Notes 18:535.
McCaskie, G. and E. A. Pugh. 1965. Fall Migration. Southern Pacific Coast region. Audubon Field Notes 19:78.
McMurry, F. B. 1948. Brewster's Booby collected in the United States. Auk 65:309-310.
Miller, L. 1936. Some maritime birds observed off San Diego, California. Condor 38:9-16.
Monroe, B. L. Jr. 1968. A distributional survey of the birds of Honduras. Ornithological Monographs no. 7.
Monson, G. 1944. Notes on birds of the Yuma region. Condor 46:19-22.
Monson, G. 1946. Brewster's Booby in Arizona Auk 63:96.
Monson, G. 1949. Recent notes from the Lower Colorado River Valley of Arizona and California. Condor 51:262-265.
Monson, G. 1950. Nesting Season. Southwest region. Audubon Field Notes 4:287.
Monson, G. 1953. Nesting Season. Southwest region. Audubon Field Notes 7:320.
Monson, G. 1954a. Fall Migration. Southwest region. Audubon Field Notes 8:33.
Monson, G. 1954b. Nesting Season. Southwest region. Audubon Field Notes 8:355.
Monson, G. 1955. Fall Migration. Southwest region. Audubon Field Notes 9:46.

Monson, G. 1956. Fall Migration. Southwest region. Audubon Field Notes 10:45.
Monson, G. 1959a. Fall Migration. Southwest region. Audubon Field Notes 13:53.
Monson, G. 1959b. Winter Season. Southwest region. Audubon Field Notes 13:312.
Monson, G. 1959c. Spring Migration. Southwest region. Audubon Field Notes 13:391.
Monson, G. 1959d. Nesting Season. Southwest region. Audubon Field Notes 13:447.
Monson, G. 1961. Fall Migration. Southwest region. Audubon Field Notes 15:63.
Monson, G. 1963a. Fall Migration. Southwest region. Audubon Field Notes 17:55.
Monson, G. 1963b. Spring Migration. Southwest region. Audubon Field Notes 17:423.
Oberholser, H. C. 1917. Notes on North American birds. Auk 34:465-470.
Palmer, R. S. 1962. Handbook of North American birds. Vol. 1. Yale Univ. Press, New Haven and London.
Phillips, A., J. Marshall and G. Monson. 1964. The birds of Arizona. Univ. of Arizona Press, Tuscon.
Pugh, E. A. 1965. Nesting Season. Southern Pacific Coast region. Audubon Field Notes 19:577.
Pyle, R. L. 1951. Nesting Season. Southern Pacific Coast region. Audubon Field Notes 5:308.
Schreiber, R. W. and R. L. DeLong. 1969. Brown Pelican status in California. Audubon Field Notes 23:57-59.
Small, A. 1954. Fall Migration. Southern Pacific Coast region. Audubon Field Notes 8:41.
Small, A. 1956. Nesting Season. Southern Pacific Coast region. Audubon Field Notes 10:410.
Small, A. 1958. Nesting Season. Southern Pacific Coast region. Audubon Field Notes 12:436.
Small, A. 1960. Winter Season. Southern Pacific Coast region. Audubon Field Notes 14:341.
Small, A. 1961a. Spring Migration. Southern Pacific Coast region. Audubon Field Notes 15:437.
Small, A. 1961b. Nesting Season. Southern Pacific Coast region. Audubon Field Notes 15:492.
Small, A. and R. L. Pyle. 1952. Nesting Season. Southern Pacific Coast region. Audubon Field Notes 6:299.
Small, A. and R. L. Pyle. 1953. Nesting Season. Southern Pacific Coast region. Audubon Field Notes 7:36.
Snider, P. R. 1967a. Fall Migration. Southwest region. Audubon Field Notes 21:64.
Snider, P. R. 1967b. Nesting Season. Southwest region. Audubon Field Notes 21:593.
Snider, P. R. 1968. Nesting Season. Southwest region. Audubon Field Notes 22:634.

Stultz, A. 1955. Another Blue-footed Booby in southern California. Condor 57:123.

Swarth, H. S. 1933. Frigate-birds of the west American coast. Condor 35:148-150.

Van Rossem, A. J. 1922. Possible occurrence of the Blue-footed Booby in southern California. Condor 24:28.

Van Rossem, A. J. 1945. A northern occurrence of the Brewster Booby. Condor 47:129.

Vorhies, C. T. and A. R. Phillips. 1937. Brown Pelican invades Arizona. Condor 39:175.

Willett, G. 1912. Birds of the Pacific slope of southern California. Pacific Coast Avifauna no. 7.

Willett, G. 1933. A revised list of the birds of southwestern California. Pacific Coast Avifauna no. 21.

Woodbury, A. M. 1937. A Brown Pelican record from Utah. Condor 39:225.

Zimmermann, D. A. 1968. Specimen of the Magnificent Frigatebird from New Mexico. Condor 70:398.

San Diego Natural History Museum, Balboa Park, San Diego, California.

BIRD LISTING AND THE FIELD OBSERVER*

Lester L. Short, Jr.

I have been impressed for some time by the restrictive nature of bird check-lists, used by field observers to tally their "scores" of species seen in an area. While such lists are an invaluable aid to beginning birders, to experienced observers in an unfamiliar area, and to veteran observers in summarizing their observations, too often they constitute the sum of the observer's records. Lists of birds invariably follow some authority, and being simple lists they mask many interesting problems and discourage the useful accumulation of meaningful biological data. Of course not every observer is personally interested in putting forth effort for the advancement of ornithology, but unconsciously he is making the observations that qualify him to do so. With very little extra effort an observer can increase the value of his observations greatly. Perhaps what is needed to facilitate this is a new form of field check-list.

Such a check-list (I have never seen one) certainly would not be a simple species list. Rather, each species would have space for notation of all readily identifiable forms, such as juveniles, females, males, eclipse plumage males. Recognizable hybrids would be included, as would subspecies that are identifiable in the field. Yet such a list would probably create as many problems as it solved, primarily because it too would encourage precise determinations even in cases where this is not possible. In fact, there is no substitute for field notes relating to one's observations. Only in this way can the features of a putative hybrid or very rare bird from elsewhere be placed on record, and made available for future consideration.

Challenges for the field observer are many, and as he gains experience in observing birds in various places at diverse times of the year, he is able to contribute ever more to ornithology. Even a beginner acquainted with the Mallard Duck, instead of recording say "60 mallards," can maximize his observations by recording, for example, "32 males, 28 females, mainly in pairs," or noting if young are present, or males are in eclipse plumage, etc. Simplicity in recording observations is a grave fault, minimizing the observer's potential contribution.

All odd birds, in fact anything out of the ordinary, should be described fully by the observer in a field notebook. The careful observer

*Some portions of this article treat material discussed by me in the *Linnaean News-Letter*, vol. 23, nos. 8-9, 1970.

will give at least a glance at any singing bird – hybrid birds may sing songs like those of their parental species, and there are records of birds singing songs like those of other species. Peculiarities of plumage may be an indication of mutation (mutants ought to be noted, and albinistic or partly albinistic birds should be described, etc.), or a hybrid may be involved. In all cases a full description is preferable to any short-cut tabulation. For example, a "Brewster's Warbler" listing for a Blue-winged x Golden-winged Warbler hybrid has relatively little information content (see Short, Proc. XIII Int. Ornith. Congress, pp. 147-160, 1963, for a discussion of the great variation in these hybrids). A "hybrid flicker" is not a good or even a valid notation, for California *breeding* flickers exhibit many indications (sometimes so strong that the birds resemble true hybrids from the hybrid zone) of introgression, that is of gene flow from the distant hybrid zone, and from the eastern flicker populations (Short, Bull. Amer. Mus. Nat. Hist., vol. 129, pp. 307-428, 1965). Calling an introgressant bird a "hybrid" implies that it is a vagrant from the zone of hybridization, whereas the individual actually may belong to the California breeding population. It is difficult to determine flicker hybrids in the West because of strong introgression, although generally the hybrids show intermediacy in several characters (e.g., "moustache" color, nape patch, shaft color), whereas introgressants usually show intermediacy in one character, or bare traces of introgression in several characters. Hence the need for accurate, detailed descriptions of putative hybrids (hybrids do indeed occur in numbers in the West during migration and in winter). I should note that my treatment of the various North American flickers as conspecific is a taxonomic matter, irrelevant to the field observer's task of identifying the identifiable.

Rather than becoming belligerent at criticism of his observations, the observer should encourage and welcome criticism. Not only does the observer gain experience from such criticism, but the ultimate value of the observer's records are dependent upon his proven ability, and this ability must be demonstrated to field experts. These experts, usually regional specialists engaged in compiling and maintaining records, must be skeptical, for only by being critical can they insure the validity of the reports emanating from their region. Such care is typical at all levels for the recognition of records; the American Ornithologists' Union Committee on Classification and Nomenclature is equally critical of records as are (or should be) regional compilers.

Let me conclude by stating that I am not "against" bird listing as such. Some of my good friends, indeed even some professional ornithologists, are spare-time listers. And many of us mentally note new

birds whether seen at foreign airports, museum gardens abroad, or wherever we happen to be (it is sensible for an ornithologist to see as many kinds of birds as he can, and many ornithologists started their life's work with that as an initial aim!). However, my point is that we should encourage at all times accurate, detailed observations recorded on paper (or on tapes). These should take the place of the unrecorded mental notes usually accompanying simple listing.

American Museum of Natural History, New York, N. Y. 10024.

NOTES

A RED-FACED WARBLER REACHES CALIFORNIA

On 30 May 1970 Xenia and Pierre Devillers and I found a Red-faced Warbler *Cardellina rubrifrons* at the Brock Ranch situated about 20 miles east of Holtville, Imperial County, California. This bird was alone in a cottonwood, and responded to "squeaking", descending from the upper portions of the tree. It moved around rather slowly on the outermost portions of the limbs, remaining motionless, with wings partially extended and bill open, for short periods of time, for the temperature was close to 100°. The following description was obtained:

> The forehead, throat, and upper breast were a dirty pink, palest on the breast. The top of the head was black, with the black extending down the sides of the face behind the eye to include the ear coverts. A small dirty white area on the nape separated the black of the black top of the head from the gray back. The back, wings and tail were gray; the wing coverts were edged with dirty white, producing two rather indistinct wing-bars on each wing. The rump was dirty white. The belly and crissum were dirty white, and the flanks were a very pale gray. The bill was black, and looked rather stubby and thick.

I collected the bird, and it is now #37494 in the San Diego Natural History Museum. The specimen was prepared by Suzanne I. Bond; it was not possible to sex the bird, but the plumage characters indicate it is a pale, rather worn, female (gives the impression of having faded, but this is how it appeared in the field). The specimen has been compared with the series in the San Diego Natural History Museum and Dr. J. R. Jehl, Jr. agreed with the identification.

The Red-faced Warbler breeds in the mountains from central Arizona (Bradshaw Mountains) (Phillips et al., 1964) and southwestern New Mexico (Magdalena Mountains) (A.O.U., 1957) south through Sonora (Marshall, 1957) and Chihuahua (Stager, 1954) possibly to Sinaloa and Durango (Miller et al., 1957). It winters in the mountains from Sinaloa and Durango to Chiapas (Alvarez del Toro, 1964), Guatemala (Griscom, 1932) and Honduras (Monroe, 1968). There is only one lowland record for Arizona (Phillips et al., 1964), and none for Mexico, which indicates it is most unusual away from the mountains. The record for California is the first for that state, and establishes another lowland record.

LITERATURE CITED

Alvarez del Toro, M. 1964. Lista de las aves de Chiapas. Instituto de Ciencias y Artes de Chiapas, Tuxtla Gutierrez.

American Ornithologists' Union. 1957. Check-list of North American birds. 5th ed. American Ornithologists' Union, Baltimore.

Griscom, L. 1932. The distribution of bird-life in Guatemala. Bull. Amer. Mus. Nat. Hist. 64:1-439.

Marshall, J. T. Jr. 1957. Birds of pine-oak woodland in southern Arizona and adjacent Mexico. Pac. Coast Avif. no. 32.

Miller, A. H., H. Friedmann, L. Griscom, and R. T. Moore. 1957. Distributional check-list of the birds of Mexico, part 2. Univ. of California Press, Berkeley.

Monroe, B. L. Jr. 1968. A distributional survey of the birds of Honduras. A.O.U. Monograph no. 7, American Ornithologists' Union, Baltimore.

Phillips, A., J. Marshall, and G. Monson. 1964. The birds of Arizona. The University of Arizona Press, Tucson.

Stager, K. E. 1954. Birds of Barranca de Cobre region of southwestern Chihuahua, Mexico. Condor 56:21-33.

Guy McCaskie, San Diego Natural History Museum, Balboa Park, San Diego, California 92112.

CHIMNEY SWIFTS IN COASTAL SOUTHERN CALIFORNIA

On 22 June 1968, around 16:00, I noticed a dark, uniformly colored swift – that eventually proved to be a Chimney Swift *Chaetura pelagica* – flying over the streets of La Jolla, a suburb in northwestern San Diego. A second individual was found a little later by Xenia Devillers and me; one or both of the swifts were seen again briefly later that evening and observed for two hours on the 23rd (with Clifford R. Lyons) and the 24th. All three days were overcast with sunny periods in the afternoon during which the birds usually appeared. None could be found on the 25th and 26th, two drizzly, rainy days. Finally, on the 27th, one of the two individuals was watched for about four hours and seen by Virginia P. Coughran, Alan M. Craig and Guy McCaskie in addition to CRL, XD and PD. The swifts were always seen in a very restricted area, cruising along the escarpment of a former sea terrace about ½ mile inland from the beach, and always in the company of Cliff Swallows *Petrochelidon pyrrhonota*. The landward edge of the coastal clouds often coincided with the escarpment. The swifts were mostly flying rather high, or were not very near the observers, but on the 27th the lone bird was seen at very close range, and the following description recorded:

Size: length of body equal to that of Cliff Swallow but wings longer (direct comparison when chasing each other).

Flight silhouette: wings long and curved, body relatively short, appearing "tailless" when the tail is folded. Glides a lot, with wings bowed far backwards and very drooping, the glides rather slow and lazy (slower than those of White-throated Swift); flapping flight rather fast, with wings raised far above horizontal at the upstroke, wingbeats rapid and stiff. Wing very much curved, with wrist very close to body; the secondaries are very short, the primaries are of normal length but seem worn, with perhaps some missing; the wing has thus a peculiar "pinched" aspect at the secondaries, and seems ragged. The tail generally folded, but often fanned; when folded, the terminal edge of the tail appears irregular when seen at close range, sometimes notched; at very close range the irregularities can be resolved into very fine spines.

Coloration; against the sky, seems all black, with the chin, throat, lower cheeks and breast lighter. Against a dark background different shades can be distinguished, as follows: Top and sides of the head, nape, back, rump, wing coverts, lower breast, belly, flanks, under tail coverts, wing linings, uniformly sooty black, the rump with a slight brownish cast. Lower cheeks, chin, throat, upper breast, slaty, still very dark, but a little less black (does not seem as light under those conditions as when the bird is seen against the sky when the contrast is very strong). Remiges and tail browner, rather dark brown (brown cast, or brown edges to black feathers). Dark eye; dark, very small bill.

Voice: pwi – pwi – pwi – pwi, clearly detached, sometimes very rapid as when the bird is chased by Cliff Swallows, sometimes much slower as when two birds are gliding together.

The second individual was similar except for secondaries of normal length and unworn primaries.

The spines at the end of the tail, the large size, the flight, the rump almost concolor with the back, the slaty throat, and the voice permit positive identification as a Chimney Swift. A description was independently recorded by GMcC and does not differ materially from this.

Since other observers will undoubtedly be confronted with the problem of identifying the species, and since the determination of swifts is notoriously delicate, I will discuss the identification in some detail. The following remarks are all based on personal field notes except when indicated otherwise. There are only three species of swifts on the North American continent (excluding the West Indies) that could be confused with the Chimney Swift: Vaux's Swift *Chaetura vauxi,* the Black Swift *Cypseloides niger* and the Chesnut-collared Swift *Cypseloides rutilus.* The large size, slower flight with frequent prolonged glides, and the very dark coloration of the La Jolla birds appeared very different from Vaux's Swift, and that species was never considered by the observers, who were all very familiar with *Chaetura vauxi.* The only hesitation during the first few days was between Chimney and Black Swifts, but this was the result of the unfamiliarity of PD and CRL with the Black Swift. Anyone who has seen *Cypseloides niger* in the field should never confuse it with one of the *Chaetura* as I have since learned. The Black Swift is a much larger bird, with a more deliberate powerful flight, a longer tail, and a different color pattern. The tail is also said to be deeply forked, but, in my experience, on some Black Swifts the tail appears square when folded, and it almost always appears rounded when opened, while the La Jolla birds gave the impression at times of having a forked tail. The Chestnut-collared Swift of Mexico and Central America is more similar in flight silhouette to the Chimney Swift, but it glides perhaps a little more, has a slightly longer tail, and appears uniformly dark (dark brown or blackish) without any lighter areas on rump or throat; males of course are easily distinguished by their bright rufous collar. The species most likely to be confused with the Chimney Swift is, naturally, the very closely related Vaux's Swift. It is worth remembering that Lack (1956) once treated them as conspecific, although he subsequently accepted a suggestion of Wetmore (1957) and reversed his decision (Lack, 1957). Vaux's Swift is a much smaller bird,and the size difference is fairly obvious in the field; the flight is more hurried, with faster wingbeats and less gliding, and the wings appear stiffer. The voice of Vaux's is a faster, more run-together high pitched trill. In addition, the northwestern race *C. v. vauxi* normally has very pale, sometimes whitish, chin, throat and lower cheeks sharply contrasting with a dark brown cap; the rump and upper tail coverts are light brown, clearly contrasting with back and tail. Those plumage characters alone are sufficient to distinguish the species from all except possibly some extremely pale *C. pelagica.* I doubt that the latter species ever shows contrasts between cap and throat, and back and rump, comparable to those of *C. v. vauxi.* There is a distinct possibility that some Vaux's Swifts would become sooted in chimneys, but I have not yet seen an individual that showed as little contrast as Chimney Swifts. Phillips (1954) has drawn attention to the possible presence in the southwestern United States of the other northern race of Vaux's Swift, *C. v. tamaulipensis.* This form, described by Sutton in 1941, breeds in northeastern Mexico (Sutton, 1941), and probably in the Sierra Madre Occidental (Phillips and Webster, 1957). A specimen taken by Phillips in southeastern Arizona on 14 May 1950 was referred by him and Sutton to *tamaulipensis* (Phillips, 1954). This mexican race is generally darker than *C. v. vauxi* and thus perhaps more likely to cause confusion with the Chimney Swift. However, both from Sutton's original description, and from his remarks quoted by Phillips, it appears that the differences between *tamaulipensis* and *vauxi* mostly concern the crown, back, and dark portions of the underparts, hence the contrast between throat and crown, or the

capped effect so characteristic of *vauxi,* should be retained, or even possibly enhanced, in *tamaulipensis.* Unfortunately, I have seen birds presumably of this form only in Nayarit, and at too long a range for critical examination, so cannot further comment on their appearance in the field. I have however seen large number of the southern Mexican form *C. v. richmondi* at close range, and noticed the typical Vaux's Swift pattern. Sutton (op. cit.) indicates that *tamaulipensis* is intermediate between *vauxi* and *richmondi.* At any rate even if plumage characters were to fail, *tamaulipensis* has the same measurements as *vauxi* (Sutton, 1941) so identification by size, silhouette, and flight should not be affected. This was verified in the field in Nayarit.

Prior to the La Jolla observation the Chimney Swift had been recorded only once in California. An individual was collected by Samuel G. Harter, one mile north of Potholes, along the Lower Colorado, on 6 May 1930 (Huey, 1960). I have examined the specimen, #13055 in the San Diego Natural History Museum Collection; it is rather pale throated, but still within the variation of *C. pelagica,* and its measurements agree perfectly with that species.

In the summer of 1968, in addition to the two birds at La Jolla, a minimum of 6 were present at Solana Beach, approximately twelve miles north of La Jolla, between at least 29 June and 22 August. Two individuals were found there on 29 June by G. Shumway Suffel and Ralph Mancke. The same number was seen by several observers, including GMcC and me, between 30 June and 12 July; on 30 June GMcC took a description. Although GMcC collected one individual on 12 July (SDNHM Collection, male in non-breeding condition), on subsequent observations he was able to evaluate that at least five birds (three with "normal" flight feathers and two with "ragged" appearance) were still present with a maximum of four seen on 21 July. The last sighting was on 22 August when GMcC and CRL saw a single individual. It is impossible to determine whether the two individuals observed earlier in La Jolla were among the Solana Beach birds, but I feel it is likely. Throughout their stay the swifts were observed cruising along a cliff face, where San Elijo Lagoon indents the coastal mesa. The situation was very similar to that in La Jolla, and the birds were likewise associated with Cliff Swallows, present here in large numbers.

In 1969 there was a single observation. GMcC saw four birds on 19 June in Mission Valley, on the east side of San Diego, about ten miles from the shoreline. He noted the size, larger than Vaux's Swift; the longer wings and the less rapid wing beat; the silhouette, with wings strongly curved backwards and bent downwards; the general blackish appearance at a distance, with, at close range, a slightly paler rump, and a paler grayish throat and upper breast contrasting with the rest of the underparts; he noticed the spines on the tail once. He described the call as an excited twitter, louder and clearer than that of Vaux's, with all the notes clearly separated. Again the birds were with Cliff Swallows, and near the steep bank of Mission Valley; the fog front was nearby.

In 1970, no Chimney Swifts could be found in San Diego, despite frequent coverage of the areas of occurrence of 1968 and 1969, but one individual was recorded in Santa Barbara. The bird was found in the home of Mr. Alden Johnson, "in the early part" of June, photographed and released. It was identified from color transparencies by Mr. Waldo G. Abbott (slides deposited in Santa Barbara Museum of Natural History). One slide was very kindly forwarded by Mr. Abbott (copy deposited in San Diego Natural History Museum) and is reproduced here.

Chimney Swift *Chaetura pelagica* photographed in Santa Barbara, June 1970. *Photo by Alden Johnson.*

Although the bird unfortunately was not measured, I think that the color pattern clearly indicates *C. pelagica*. Note the upper tail coverts concolor with the tail, the dark throat, as well as the spines of the tail. The possibility of a sooted *C. vauxi* can, I believe, be discarded because on the color transparency the plumage seems clean, showing for instance pale brown edges to certain flight feathers, fine brown scalloping on the top of the head, and a greenish gloss on the shoulder.

In addition to these records, there are, scattered in Audubon Field Notes, a number of summer records of "Vaux's Swifts" or "swifts" in southern California, which could pertain to this species. Because of the lack of detailed description they cannot, at present, be specifically allocated. Vaux's Swifts in southern California during the summer are unlikely but at least one *Chaetura* record seems to correspond positively to that species: South Pasadena, 31 July to 22 September 1943 (Cogswell, 1944; identification on the basis of moulted feathers found in a chimney where the swifts were roosting).

The Chimney Swift breeds in southeastern Canada, northwest to east central Saskatchewan (Godfrey, 1966), and in the eastern United States east to Texas (A.O.U., 1957), migrating through eastern Mexico and Central America to northeastern South America (Lincoln, 1944). The species was restricted as a breeder by the limit of the eastern forest, but it has become adapted to man made structures (chimneys), and is now expanding its range westwards with the increase in the size of towns in the plains (Sutton, 1967). The western limit of the range includes Nebraska, the eastern half of Colorado (Bailey and Niedrach, 1965), most of Kansas, the Oklahoma panhandle (Sutton, 1967). In the Southwest outside California, two records are mentioned for New Mexico by Florence M. Bailey (1928) (Rinconada, 1 May 1904; Mimbres River, 30 miles south-east of Silver City, 22 May 1921), and one for Arizona by Phillips, Marshall and Monson (1964) (nonbreeding pair at Tucson, 30 May to mid June 1952). There are also unidentified swift records for Arizona. The fact that Chimney Swifts were observed in coastal southern California in three consecutive summers is certainly interesting, and further observation may prove that a few non-breeders regularly spend the summer in the region.

I am grateful to Waldo G. Abbott for sending the details concerning the Santa Barbara record and forwarding the photograph, to Guy McCaskie for permitting use of his notes, and to him and Jean T. Craig for useful comments on the manuscript.

LITERATURE CITED

American Ornithologists' Union. 1957. Check-list of North American birds. Fifth ed. Amer. Ornithol. Union, Baltimore.

Bailey, A. M. and R. J. Niedrach. 1965. Birds of Colorado. Vol II. Denver Museum of Natural History, Denver.

Bailey, F. M. 1928. Birds of New Mexico. New Mexico Department of Game and Fish, Santa Fe.

Cogswell, H. L. 1944. Vaux Swifts in late summer in South Pasadena, California. Condor 46:33.

Godfrey, W. E. 1966. The birds of Canada. Nat. Mus. of Canada Bull. 203. Biol. Series 73.

Huey, L. M. 1960. Notes on Vaux and Chimney Swifts. Condor 62:483.

Lack, D. 1956. A review of the genera and nesting habits of swifts. Auk 73:1-32.
Lack, D. 1957. The first primary in swifts. Auk 74:385-386.
Lincoln, F. C. 1944. Chimney Swift's winter home discovered. Auk 61:604-609.
Phillips, A. R. 1954. Western records of *Chaetura vauxi tamaulipensis.* Wilson Bull. 66:72-73.
Phillips, A., J. Marshall and G. Monson. 1964. The birds of Arizona. Univ. of Arizona Press, Tucson.
Phillips, A. R. and J. D. Webster. 1957. The Vaux Swift in western Mexico. Condor 59:140-141.
Sutton, G. M. 1941. A new race of *Chaetura vauxi* from Tamaulipas. Wilson Bull. 53:231-233.
Sutton, G. M. 1967. Oklahoma birds. Univ. of Oklahoma Press, Norman.
Wetmore, A. 1957. Species limitation in certain groups of the swift genus *Chaetura.* Auk 74:383-385.

Pierre Devillers, 11 av. de l'Oiseau bleu, 1150 Bruxelles, Belgium; presently, AMES Dept., Univ. of California at San Diego, La Jolla, California 92037.

SHARP-TAILED SANDPIPER IN SANTA BARBARA

On 13 September 1969 Richard Webster and I observed an immature Sharp-tailed Sandpiper (*Erolia acuminata*) in the salicornia marsh at Goleta Slough, Santa Barbara County, California. The bird remained in the area until 21 September 1969; during this period it was well observed by many others including Bruce Broadbooks, Ralph G. Mancke, Lawrence Sansone III, Jay M. Sheppard, and G. Shumway Suffel. The following description is, for the most part, taken from my notes which I made shortly after the time of observation:

Upperparts: crown and forehead dark, bright rusty, streaked with fine black lines; rest of upperparts more reddish than the upperparts of Pectoral Sandpipers (*Erolia melanotos*). Back streaked, feathers rusty brown edged with a paler cinnamon color. Rump and tail dark in coloration, like that of the Pectoral Sandpiper. Cheeks dusky cinnamon. Underparts: throat whitish, not sharply defined; throat coloration blends into the uniform, pale cinnamon of the upper breast. Dusky breast streaking very faint, entirely restricted to the sides of the breast (lack of strong breast streaking is distinctly different from the heavy, regular streakings of most Pectoral Sandpipers). No abrupt border between the cinnamon colored upper breast and the whitish lower breast and belly (strikingly different from Pectoral Sandpipers, which nearly always have a sharp line of division between the breast and belly colorations). Undertail coverts whitish; short dusky or blackish streaks on the undertail coverts may be diagnostic of the species, but these dusky markings may not always be visible in the field. Wing: slightly more brownish and less cinnamon than back; in flight there is no wing stripe. Soft parts: eye dark; blackish bill relatively thin and straight; legs yellowish-green. Size: approximately the same size as a Pectoral Sandpiper; posture erect and alert. Wing beat like that of the Pectoral Sandpiper.

This appears to be the fifth completely satisfactory record of the Sharp-tailed Sandpiper in California. The species breeds in northern Siberia, and winters south to Australia and New Zealand. Although its primary migration route is through eastern Siberia and along the Pacific coast of Asia, North American records indicate that it is also a more or less regular fall straggler on the coast as far south as Washington. Farther south, however, the species is increasingly rare and can probably be considered no more than an irregular or casual visitant to California. *Jon L. Atwood, 511 Santa Maria, Arcadia, California 91006.*

[The species is a common late summer and fall visitor to the west coast of Alaska (Gabrielson and Lincoln, The Birds of Alaska, p. 372, 1959). It becomes a scarce autumn transient on the coast of British Columbia (Godfrey, The Birds of Canada, p. 152, 1966) and is recorded irregularly, possibly regularly, on the coast of Washington (Alan Baldridge, pers. comm.). Further south it appears to be casual to accidental.

In California, prior to 1969, there are only four fully substantiated records:

1. Olema, Marin County, 27 November 1870 (specimen #1170, Peabody Museum, checked by Grinnell and Miller).

2. Mission Bay, San Diego County, 16 September 1921 (specimen #2255, San Diego Natural History Museum, seen by Grinnell and by the eds., labeled 15 September 1921).

3. Oakland, Alameda County, 10 to 26 October 1959, bird seen by numerous observers including GMcC; full description in GMcC's notes.

4. Abbott's Lagoon, Marin County, 3 September 1968, bird observed and described by John Smail (description on file, California Birds).

In 1969, in addition to the fully documented records above, there were the following acceptable records:

1. A bird at Bodega Bay, Sonoma County, found by Laurence C. Binford and Charles T. Clark on 13 October; an individual, possibly the same, banded and photographed there on 3 November by Marianne Shepard (color photograph on file, Point Reyes Bird Observatory and California Birds).

2. Four to six immatures observed in the Humboldt Bay region between 16 and 30 October. Three birds were found on 16 October by Ron H. Gerstenberg, Stanley W. Harris, and Kim Burton, one of which was collected by SWH; the other two were seen by several observers on 17 October. On 24 and 30 October three were seen one mile east of the first area by RHG, and one collected on the latter date. Both specimens are deposited in the Humboldt State College collection. Information on these records was kindly provided by R. H. Gerstenberg.

The following records, published in Audubon Field Notes, cannot at present be accepted because they lack supporting details:

– near Woodland, Yolo County, 13 September 1960 (AFN 15:72, 1961); bird probably a Pectoral Sandpiper.

– Carlsbad, San Diego County, 7 October 1963 (AFN 18:74, 1964); possibly correct, but the eds. feel that the description does not completely exclude other species, such as Buff-breasted Sandpiper (*Tringytes ruficollis*).

– Limantour Estero, Marin County, 12 and 13 October 1966 (AFN 21:74, 1967); a number of observers saw this individual, but disagreed on its identification.

– Abbott's Lagoon, Marin County, 22 November 1966 (AFN 21:74, 1967); the eds. have not seen any supporting details.

– Bodega Bay, Marin County, 4 November 1969, "at least five" (AFN 24:91, 1970); no supporting details seen (one bird present there between 13 October and 3 November, and was fully documented – see above).

– Olema Marsh, Marin County, 4 November 1969, two seen (AFN 24:91, 1970); no supporting details seen.

All substantiated records from North America involve immature birds except for one reported by J. W. Taylor at Kivalina, Alaska (Wilson Bull. 81:337-8, 1969) – *GMcC and PD*]

REVIEW

Check-list of the Birds of New Mexico. – John P. Hubbard. 1970. New Mexico Ornithological Society Publication No. 3. 103 p., 3 maps. $2.50

Despite the attraction of its varied and abundant birdlife (476 species), New Mexico is poorly known ornithologically. The standard reference work to the birds of the state, *The Birds of New Mexico,* by Florence Merriam Bailey (1928) is long out of date, and its "replacement", *New Mexico Birds and Where to Find them* by J. S. Ligon (1961) has serious limitations.

The need for an up-to-date annotated list is filled by the appearance of Hubbard's competent and carefully-detailed paper. In it, the statewide status of each species is discussed. Supplementary information given includes: distribution (by county), specimen or photographic documentation, breeding records, seasonal status, and frequency of occurrence. For species whose status has not been unequivocally determined, Hubbard ranks the records on a sliding scale that ranges from "highly probable" to "questionable."

By using a shorthand format, Hubbard has managed to cram an amazing amount of detail into a small space. An interesting feature is that names of observers are largely or entirely omitted. This procedure may not appeal to those who scan *Audubon Field Notes* studying the distribution of their own initials, but those who are more interested in the distribution of birds will find that it does not detract from the general usefulness of the list.

All annotated lists have the incidental salutary effect of pointing out gaps in our knowledge. This list should be especially helpful in stimulating studies of New Mexico birds because of the thoroughness with which the data have been compiled. It is available at a bargain price from the New Mexico Ornithological Society, P.O. Box 277, Cedar Crest, New Mexico 87008. *J. R. Jehl, Jr., San Diego Natural History Museum, Box 1390, San Diego, California 92112.*

ACKNOWLEDGEMENTS

In this fourth and final issue of Volume 1, the editors of California Birds wish to express their gratitude to those individuals who have helped the magazine through its infancy. Our membership has grown to over 750 as the result of the publicity efforts of many individuals and organizations, and in this respect we are particularly indebted to C. John Ralph, Fred C. Sibley and the staff of Point Reyes Bird Observatory. Financially, continued publication might not have been possible without the additional support given by our life, contributing and sustaining members, and the many others who have contributed more than the basic annual membership fee. Numerous individuals have offered much appreciated constructive criticism. Our special thanks go to Joseph R. Jehl, Jr. who has painstakingly reviewed several of the papers and advised us on innumerable editorial and publication matters.

As the second year of publications begins, we face steadily rising printing costs. The growth of California Birds will depend not only on the continued support of all of our current membership, but also on the recruitment of new members. We solicit your help in this task.

Our most difficult problem to date has been one of obtaining a backlog of material for publication to keep California Birds on schedule. It is perhaps typical of new journals that initially much of the content must be authored by the editors, but hopefully more of our readers will contribute the results of their particular studies to fill future issues. Broader authorship benefits not only the readers, who profit from the wider range of ideas and knowledge, but also the prospective author, since the preparation of a manuscript is a rewarding learning experience. Any of the editors will gladly assist those who have data which they consider appropriate for California Birds but who are not sure how to prepare it for publication.

Lastly, we hope that our readers will continue to offer constructive criticism, for it is with this input that we can most effectively advance the study of field ornithology.

CORRIGENDUM

The Editors apologize for an inadvertent mistake in California Birds 1, 3. The Le Conte's Thrasher photographs credited to Herbert Clarke on page 91 were in fact taken by Arnold Small. We are thankful to Mr. Clarke for pointing out the error.

Library of
ROBERT GILL

TABLE OF CONTENTS

INDEX

CALIFORNIA BIRDS

VOLUME 1, 1970

INDEX TO CALIFORNIA BIRDS, VOL. 1

Compiled by Virginia P. Coughran

aalge, Uria, 107-110
Acridotheres cristatellus, 25
Actitis macularia, 106
acuminata, Erolia, 153-154
Adamastor cinereus, 23
Albatross, Black-footed, 113-114
  Laysan, 115
  Short-tailed, 113-115
  Steller's, 114
  Wandering, 115
albatrus, Diomedea, 113-115
albifrons, Sterna, 33, 35
Alectoris chukar, 6
  graeca, 6
  magna, 6
alnorum, Empidonax, 7
americana, Mycteria, 5
Anas carolinensis, 6
  crecca, 6
  c. carolinensis, 6
  c. crecca, 6
  falcata, 24
  formosa, 24
Anthus spragueii, 25
Aphelocoma coerulescens, 81
arctica, Gavia, 5
arctoa, Leucosticte, 8
arenicola, Toxostoma lecontei, 86
argentatus, Larus, 7
arra, Uria lomvia, 107-110
atrata, Leucosticte, 8
atratus, Coragyps, 25
Atwood, Jon L., Sharp-tailed Sandpiper in Santa Barbara, 153-154
auduboni, Dendroica, 7
auratus, Colaptes, 7
australis, Leucosticte, 8
bachmani, Haematopus, 83
Bartramia longicauda, 6
bernicla, Branta, 6
Bluebird, Eastern, 25
Booby, Blue-footed, 117-142
  Brown, 117-142
borealis, Phylloscopus, 102
Brant, 6
  Black, 6
Branta bernicla, 6
  b. hrota, 6
  b. nigricans, 6
  nigricans, 6
  ruficollis, 23
brewsteri, Sula leucogaster, 123-124
bullockii, Icterus, 8
Bunting, Rustic, 25
Burleigh, Thomas D., A breeding record for Spotted Sandpiper in Monterey County, 106
Buteo harlani, 6
  jamaicensis, 6
caerulescens, Chen, 6
cafer, Colaptes, 7
californica, Uria aalge, 108
californicus, Pelecanus occidentalis, 117-118
caniceps, Junco, 8
capense, Daption, 23, 39-40
Cardellina rubrifrons, 145-146
Carduelis carduelis, 25
carolinensis, Anas, 6
  A. crecca, 6
  Pelecanus occidentalis, 117
Carpodacus erythrinus, 102
Casarca ferruginea, 25
caspia, Hydroprogne, 33
Cassidix major, 8
  mexicanus, 8
Chaetura pelagica, 147-152
  vauxi, 147-152
  v. richmondi, 149
  v. tamaulipensis, 148-149
  v. vauxi, 148-149
Chen caerulescens, 6
  hyperborea, 6
Chlidonias niger, 33
chrysoides, Colaptes, 7
Chukar, 6
chukar, Alectoris, 6
cinerascens, Myiarchus, 79-80
cinereus, Adamastor, 23
coerulescens, Aphelocoma, 81
Colaptes auratus, 7
  cafer, 7
  chrysoides, 7
Coragyps atratus, 25
coronata, Dendroica, 7
Coughran, Virginia P., see McCaskie, Guy, and –
Craig, Alan M., Two records of Grace's Warbler in California, 77-78; see also McCaskie, Guy, and –
Craig, Jean T., Kentucky Warbler in San Diego, 37-38; see also McCaskie, Guy, and –

crassirostris, Larus, 24
crecca, Anas, 6
A. c., 6
crinitus, Myiarchus, 80
crissale, Toxostoma, 85
cristata, Cyanocitta, 81-83
cristatellus, Acridotheres, 25
Cyanocitta cristata, 81-83
stelleri, 81
Cygnus olor, 25
Cynanthus latirostris, 111-112
Cypseloides niger, 148
rutilus, 148
daggetti, Sphyrapicus ruber, 47-76
Daption capense, 23, 39-40
deglandi, Melanitta, 6
Dendroica auduboni, 7
coronata, 7
graciae, 77-78
striata, 95-104
Devillers, Pierre, Chimney Swifts in coastal Southern California, 147-152,
The identification and distribution in California of the *Sphyrapicus varius* group of sapsuckers, 47-76;
also see McCaskie, Guy, and –
Diomedea albatrus, 113-115
exulans, 115
immutabilis, 115
nigripes, 113-115
Eider, Spectacled, 24
elegans, Thalasseus, 33
Emberiza rustica, 25
Empidonax alnorum, 7
traillii, 7
Erolia acuminata, 153-154
melanotos, 153-154
erythrinus, Carpodacus, 102
erythrocephalus, Melanerpes, 25
erythrorhynchos, Pelecanus, 119-120
excisa, Sula nebouxii, 120
exulans, Diomedea, 115
falcata, Anas, 24
ferruginea, Casarca, 25
Finch, Black Rosy, 8
Brown-capped Rosy, 8
Gray-crowned Rosy, 8
Rosy, 8
fischeri, Lampronetta, 24
Flamingo, American, 25
Flicker, Common, 7
Gilded, 7
Red-shafted, 7
Yellow-shafted, 7
Flycatcher, Ash-throated, 79, 80
Great Crested, 80
Kiskadee, 25
Nutting's, 80
Olivaceous, 79-80
Traill's, 7
Wied's Crested, 80
Willow, 7
formosa, Anas, 24
formosus, Oporornis, 37-38
forsteri, Sterna, 33
Fregata magnificens, 117-142
minor, 128-129
Frigatebird, Magnificent, 117-142
fusca, Melanitta, 6
fuscescens, Hylocichla, 25
galbula, Icterus, 8
I.g., 8
Gavia arctica, 5
a. pacifica, 5
a. viridigularis, 5
pacifica, 5
Gelochelidon nilotica, 33
gilvus, Vireo, 105-106
Goldfinch, European, 25
Goose, Blue, 6
Red-breasted, 23
Snow, 6
graciae, Dendroica, 77-78
D. g., 77-78
Grackle, Boat-tailed, 8
Great-tailed, 8
graeca, Alectoris, 6
Grosbeak, Scarlet, 102
Gull, Black-tailed, 24
Herring, 7
Thayer's, 7
Haematopus bachmani, 83
harlani, Buteo, 6
Hawk, Harlan's, 6
Red-tailed, 6
Higgs, Raymond, An inland record of the Black Oystercatcher, 83
Himantopus himantopus, 6
mexicanus, 6
hirundo, Sterna, 33-36
hrota, Branta bernicla, 6
Hubbard, John P., Check-list of the birds of New Mexico (review), 155
Hummingbird, Broad-billed, 111-112
Hydroprogne caspia, 33
hyemalis, Junco, 8
Hylocichla fuscescens, 25
hyperborea, Chen, 6

Ibis, Wood, 5
Icterus bullockii, 8
galbula, 8
g. galbula, 8
immutabilis, Diomedea, 115
inornata, Uria aalge, 107
inornatus, Phylloscopus, 102
jamaicensis, Buteo, 6
Jay, Blue, 81-83
Scrub, 81
Steller's, 81
Jehl, J. R., Jr., review by, 155
Junco caniceps, 8
hyemalis, 8
oreganus, 8
Junco, Dark-eyed, 8
Gray-headed, 8
Oregon, 8
Slate-colored, 8
Kingbird, Tropical, 102
Lampronetta fischeri, 24
Larus argentatus, 7
crassirostris, 24
thayeri, 7
latirostris, Cynanthus, 111-112
lecontei, Toxostoma, 85-94
T. l., 86
Leucosticte arctoa, 8
atrata, 8
australis, 8
tephrocotis, 8
leucogaster, Sula, 117-142
lomvia, Uria, 107-110
longicauda, Bartramia, 6
Loon, Arctic, 5
Pacific, 5
Lyons, Clifford R., see McCaskie, Guy, and –
McCaskie, Guy, A Cape Petrel off Monterey, California, 39-40, A Red-faced Warbler reaches California, 145-146, The American Redstart in California, 41-46, The Blackpoll Warbler in California, 95-104, The Blue Jay in California, 81-83, The Broad-billed Hummingbird in California, 111-112, The occurrences of four species of Pelecaniformes in the southwestern United States, 117-142
McCaskie, Guy, Pierre Devillers, Alan M. Craig, Clifford R. Lyons, Virginia P. Coughran, and Jean T. Craig, A checklist of the birds of California, 4-28
macmillanorum, Toxostoma lecontei, 86
macularia, Actitis, 106
magna, Alectoris, 6
magnificens, Fregata, 117-142
major, Cassidix, 8
maximus, Thalasseus, 33
melancholicus, Tyrannus, 102
Melanerpes erythrocephalus, 25
Melanitta deglandi, 6
fusca, 6
melanotos, Erolia, 153-154
mexicanus, Cassidix, 8
Himantopus, 6
minor, Fregata, 128-129
Murre, Common, 107-110
Thick-billed, 107-110
Mycteria americana, 5
Myiarchus cinerascens, 79, 80
crinitus, 80
nuttingi, 80
tuberculifer, 79-80
t. olivascens, 80
t. tresmariae, 80
tyrannulus, 80
yucatanicus, 80
Myna, Crested, 25
nebouxii, Sula, 117-142
niger, Chlidonias, 33
Cypseloides, 148
nigricans, Branta, 6
B. bernicla, 6
nigripes, Diomedea, 113-115
nilotica, Gelochelidon, 33
nisoria, Sylvia, 102
nuchalis, Sphyrapicus, 7, 47-76
S. varius, 7
Nuthatch, Brown-headed, 7
Pine, 7
Pygmy, 7
nuttingi, Myiarchus, 80
occidentalis, Pelecanus, 117-142
olivascens, Myiarchus tuberculifer, 80
olor, Cygnus, 25
Oporornis formosus, 37-38
oreganus, Junco, 8
Oriole, Baltimore, 8
Bullock's, 8
Northern, 8
Otus trichopsis, 25
Owl, Whiskered, 25
Oystercatcher, Black, 83
pacifica, Gavia, 5
G. arctica, 5
paradisaea, Sterna, 33-36
Partridge, Chukar, 6

Przewalski's Rock, 6
Rock, 6
pelagica, Chaetura, 147-152
Pelecanus erythrorhynchos, 119-120
occidentalis, 117-142
o. californicus, 117-118
o. carolinensis, 117
Pelican, Brown, 117-142
White, 119-120
Petrel, Cape, 23, 39-40
Petrochelidon pyrrhonota, 147
Phoenicopterus ruber, 25
Phylloscopus borealis, 102
inornatus, 102
proregulus, 102
trochiloides, 102
Pipit, Sprague's, 25
Pitangus sulphuratus, 25
Plover, Upland, 6
proregulus, Phylloscopus, 102
pusilla, Sitta, 7
pygmaea, Sitta, 7
pyrrhonota, Petrochelidon, 147
Pyrrhuloxia, 25
Pyrrhuloxia sinuata, 25
redivivum, Toxostoma, 85
Redstart, American, 41-46
richmondi, Chaetura vauxi, 149
ruber, Phoenicopterus, 25
Sphyrapicus, 7, 47-76
S. ruber, 47-76
S. varius, 7
rubrifrons, Cardellina, 145-146
ruficollis, Branta, 23
Tringytes, 154
rustica, Emberiza, 25
ruticilla, Setophaga, 41-46
rutilus, Cypseloides, 148
Sandpiper, Buff-breasted, 154
Pectoral, 153, 154
Sharp-tailed, 153-154
Spotted, 106
Upland, 6
sandvicensis, Sterna, 35
Sapsucker, Red-breasted, 7, 47-76
Red-naped, 7, 47-76
Yellow-bellied, 7, 25, 47-76
Scoter, Velvet, 6
White-winged, 6
Setophaga ruticilla, 41-46
Shearwater, Black-tailed, 23
Sheld-duck, Ruddy, 25
Sheppard, Jay M., A study of the Le Conte's Thrasher, 85-94
Short, Lester L., Jr., Bird listing and the field observer, 143-145
Sialia sialis, 25
sinuata, Pyrrhuloxia, 25
Sitta pusilla, 7
pygmaea, 7
Sphyrapicus nuchalis, 7, 47-76
ruber, 7, 47-76
r. ruber, 47-76
r. daggetti, 47-76
varius, 7, 25, 47-76
v. nuchalis, 7
v. ruber, 7
v. varius, 7
spragueii, Anthus, 25
stelleri, Cyanocitta, 81
Sterna albifrons, 33, 35
forsteri, 33
hirundo, 33-36
paradisaea, 33-36
sandvicensis, 35
Stilt, Black-necked, 6
Black-winged, 6
Stork, Wood, 5
striata, Dendroica, 95-104
Suffel, G. Shumway, An Olivaceous Flycatcher in California, 79-80
Sula leucogaster, 117-142
l. brewsteri, 123-124
nebouxii, 117-142
n. excisa, 120
sulphuratus, Pitangus, 25
Swallow, Cliff, 147
Swan, Mute, 25
Swift, Black, 148
Chestnut-collared, 148
Chimney, 147-152
Vaux's, 147-152
Sylvia nisoria, 102
tamaulipensis, Chaetura vauxi, 148-149
Teal, Baikal, 24
Common, 6
Falcated, 24
Green-winged, 6
tephrocotis, Leucosticte, 8
Tern, Arctic, 33-36
Black, 33
Caspian, 33
Common, 33-36
Elegant, 33
Forster's, 33
Gull-billed, 33
Least, 33, 35
Royal, 33

Sandwich, 35
Thalasseus elegans, 33
maximus, 33
thayeri, Larus, 7
Thrasher, California, 85
Crissal, 85
Le Conte's, 85-94
Toxostoma crissale, 85
lecontei, 85-94
l. arenicola, 86
l. lecontei, 86
l. macmillanorum, 86
redivivum, 85
traillii, Empidonax, 7
tresmariae, Myiarchus tuberculifer, 80
trichopsis, Otus, 25
trochiloides, Phylloscopus, 102
tuberculifer, Myiarchus, 79-80
tyrannulus, Myiarchus, 80
Tyrannus melancholicus, 102
Tringytes ruficollis, 154
Uria aalge, 107-110
a. californica, 108
a. inornata, 107
lomvia, 107-110
l. arra, 107-110
Vande Weghe, Jean-Pierre, Identification of Common and Arctic Terns, 33-36
varius, Sphyrapicus, 7, 25, 47-76
S. v., 7
vauxi, Chaetura, 147-152
C. v., 148-149
Veery, 25
Vireo gilvus, 105-106
Vireo, Warbling, 105-106
viridigularis, Gavia arctica, 5
Vulture, Black, 25
Wahl, Terence R., A Short-tailed Albatross record for Washington State, 113-115
Warbler, Audubon's, 7
Blackpoll, 95-104
Grace's, 77-78
Kentucky, 37-38
Myrtle, 7
Red-faced, 145-146
Yellow-rumped, 7
Webster, Richard, A Warbling Vireo wintering in California, 105-106
Woodpecker, Red-headed, 25
Yadon, Vernal L., Four Thick-billed Murre records for Monterey Bay, 107-110
yucatanicus, Myiarchus, 80

TABLE OF CONTENTS

CALIFORNIA BIRDS VOLUME 1

Volume 1, Number 1

Editorial 1

The Functioning of the Rare Bird Committee 2

A Checklist of the Birds of California *G. McCaskie, P. Devillers A. M. Craig, C. R. Lyons, V. P. Coughran, J. T. Craig* 4

Identification of Common and Arctic Terns *Jean-Pierre Vande Weghe* 33

NOTES

Kentucky Warbler in San Diego *Jean T. Craig* 37

Cape Petrel off Monterey *Guy McCaskie* 39

Volume 1, Number 2

The American Redstart in California *Guy McCaskie* 41

The Identification and Distribution in California of the *Sphyrapicus varius* Group of Sapsuckers *Pierre Devillers* 47

NOTES

Two Records of Grace's Warbler in California *Alan M. Craig* 77

An Olivaceous Flycatcher in California *G. Shumway Suffel* 79

The Blue Jay in California *Guy McCaskie* 81

An Inland Record of the Black Oystercatcher *Raymond Higgs* 83

CORRIGENDUM 84

Volume 1, Number 3

A Study of the Le Conte's Thrasher *Jay M. Sheppard* 85

The Blackpoll Warbler in California *Guy McCaskie* 95

NOTES

A Warbling Vireo Wintering in California *Richard Webster* 105

A Breeding Record for the Spotted Sandpiper in Monterey County *Thomas D. Burleigh* 106

Four Thick-billed Murre Records for Monterey Bay *Vernal L. Yadon* 107

The Broad-billed Hummingbird in California *Guy McCaskie* 111

A Short-tailed Albatross Record for Washington State *Terrence R. Wahl* 113

Volume 1, Number 4

The Occurrence of Four Species of Pelecaniformes in the Southwestern United States *Guy McCaskie* 117

Bird Listing and the Field Observer *Lester L. Short, Jr.* 143

NOTES

A Red-faced Warbler Reaches California *Guy McCaskie* 145

Chimney Swifts in Coastal Southern California *Pierre Devillers* 147

Sharp-tailed Sandpiper in Santa Barbara *Jon L. Atwood* 153

REVIEW 155

ACKNOWLEDGEMENTS 156

INDEX 157